

## CCPI Breakout Session Discussion Topics Final Version

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### **Technology Session**

#### ***What Technologies Should be Addressed in RD&D Programs?***

*Lawrence A. Ruth, Facilitator*

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Electric system reliability is a key theme of the National Energy Policy. The CCPI is intended to help ensure reliability by increasing the competitiveness of coal-based power generation. The core R&D program encompasses technology advancements that will increase the reliability, efficiency, environmental performance, and economic competitiveness of coal-fired power generation to ensure this fuel's continued role in the Nation's energy mix. The purpose of this session is to gain industry's perspective on important technology issues and portfolio options. Talking points for this session include:

#### **Technology Responses to Market Drivers**

- C Carbon Reduction/Elimination
- C Increased Generation Efficiency
- C Retrofits and Powering
- C Brownfield/Greenfield
- C Reliability and Capacity

#### **Infrastructure Improvements**

- C Boundary/Fit with CCPI (e.g., transmission upgrades)
- C Technology and/or Demonstration Needs
- C Geographic Focus (coal by wire/mine mouth vs. demand locations)

#### **Establishing a Technology Portfolio**

- C Importance to Technology Mix
- C Performance Targets (near-, mid-, long-term)
- C Barriers/Incentives

#### **Technology Management**

- C Government and Industry Roles
- C Measures of Success
- C General Barriers/Incentives
- C Qualification and Selection Criteria
- C Project Scale (R&D, demo, size, cost)

#### **Priorities or Key Issues for CCPI**

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### **Markets and Business Session**

#### ***What Draws Industry to be Involved in Demonstrations?*** ***What Are the Key Factors in Achieving Commercial Success?***

*Thomas A. Sarkus, Facilitator*

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This session is designed to gain industry's perspective on structuring the marketing and business aspects of the CCPI. Its objective is to ensure that the CCPI will be shaped in a manner that will encourage industry participation. Talking points for this session include:

#### **Risks and Incentives**

- C Types of Risk (e.g., technology, project, regulatory, economic)
- C Risk Management Tools (e.g., investment and production tax credits, accelerated depreciation, cost-sharing, loan guarantees)
- C Government Role (risk minimization)

#### **Repayment**

- C Repayment on Demonstration Projects vs. Replications/Deployments
- C Repayment Forgiveness -- For Successes/Failures
- C Basis and Methods of Repayment
- C Repayment Reporting to DOE

#### **Teaming**

- C Single vs. Multiple Corporate Project Sponsors
- C Government Selection Criteria/Requirements
- C Role and Commitment of Host Sites
- C Implications on Repayment
- C Intellectual Property and Patent Rights

#### **Financing Options for Demonstration Projects**

- C Cost-Sharing Percentages (typically 50% Government share for demos)
- C Government Guarantee (yearly vs. advanced appropriations)
- C Contribution Types (in-kind, cash, etc.)
- C Other (e.g., tiered cost-sharing based on novelty of demonstration)

#### **Industry Participation**

- C Barriers
- C Identify Opportunities to Maximize Industry Involvement

#### **Priorities or Key Issues for CCPI**

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### Regulatory Session

#### *How do Regulations Drive and Constrain RD&D and Deployments?*

*Thomas J. Feeley, Facilitator*

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Statutory structure, regulatory interpretation, implementing policy, and agency cultures define the regulatory climate that impacts technology development and deployment. These factors can directly or indirectly support or undermine this process. Reducing the cost of meeting environmental regulations is a primary driver in new technology development. Unstable regulatory environments and prescriptive statutes and regulations tend to restrict investment in technology development/deployment aspects of the CCPI. Talking points for this session include:

#### **Public Needs and Benefits**

- C Consideration of Cost vs. Benefit
  - Health Standards -- Heading Towards Zero Emissions
- C Science vs. Policy
- C National/Regional/State/Local Needs and Benefits
- C Tracking Benefits (reporting/verification)
  - Data is gathered -- needs unbiased evaluation
  - Public access to data and evaluations

#### **Regulatory Constraints**

- C Barriers and Needs
- C Effects of Deregulation
- C Federal vs. State Regulatory Issues
- C Impact of NEPA requirements

#### **Control Technology**

- C Importance to Technology Portfolio Mix
- C Technology Options
- C Multi-Pollutant Control Approaches
- C Performance Targets (near-, mid-, long-term)
- C Technology Balance (near-, mid-, long-term activities)
- C Project Scale (R&D, demo, size, cost)

#### **By-Product Management**

- C Importance to Technology Portfolio Mix
- C Technology Options
- C Incentives for By-product Utilization/Reduction/Elimination
- C End Uses
- C Liability Limitations
- C Incentives

#### **Water Usage**

- C Effect of Emerging Regulations
  - 316(b)
  - Water availability and siting issue
- C Importance to Technology Portfolio Mix
- C Technology Options
- C Incentives for Decreased Utilization

#### **Emissions Trading**

- C Regulatory Uncertainties and Barriers
- C Credits for GHG
- C Relationship to Financing
- C Inter/Intra Company Trading
- C Offsets for Demonstrations/Replications

#### **Stability and Certainty**

- C Barriers and Issues
- C Safe Harbor Possibilities/Statutory Protection

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#### Management Session

##### *What Management Structure will Maximize Benefits to Nation?*

*Michael L. Eastman, Facilitator*

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This session focuses on the options for creating an effective management structure for the CCPI. Specifically, this session should discuss the options and opportunities for industry and stakeholder involvement in the conceptual planning and conduct of the CCPI. Talking points for this session include:

#### Industry & Association Involvement in Guideline Development

- C Appropriate Industry/Association Management Roles
- C Identify Appropriate Organizations
- C Identify Potential Models for Involvement
- C Barriers and Constraints
  - Ability to manage and bid proposals
  - Fairness to project selection process
  - Ability to understand, implement, and enforce government procedures (e.g., procurement, intellectual property, and NEPA)
  - Avoidance of conflicts of interest
- C Ensuring Business Sector and National Benefits

#### Program Implementation & Management Approaches

- C Benefits/Disadvantages of “Traditional” Federal Role
- C Benefits/Disadvantages of Expanded Industry Role
- C Mechanisms for Industry Participation
- C Business Sector/Stakeholder Evaluation Options

### Priorities or Key Issues for CCPI